

11.1 Solving Quadratic Equations by Square Root Method DAY ONE CYU

Use when you get it right all by yourself  
*S* Use when you did it all by yourself, but made a silly mistake  
*H* Use when you could do it alone with a little help from teacher or peer  
*G* Use when you completed the problem in a group  
*X* Use when a question was attempted but wrong (get help)  
*N* Use when a question was not even attempted

CONCEPTS	BASIC	INTERMEDIATE	ADVANCED
Solving quadratics using the square root method	1 - 6	7 - 14	15 - 21

Using the square root property to solve each equation. These equations have real & nonreal number solutions.

1.  $x^2 = 16$

$x = \pm 4$

2.  $x^2 = 49$

$x = \pm 7$

3.  $x^2 - 7 = 0$

$x = \pm \sqrt{7}$

4.  $x^2 - 11 = 0$

$x = \pm \sqrt{11}$

5.  $x^2 = 18$

$x = \pm 3\sqrt{2}$

6.  $y^2 = 20$

$y = \pm 2\sqrt{5}$

7.  $3z^2 - 30 = 0$

$z = \pm \sqrt{10}$

8.  $2x^2 - 4 = 0$

$x = \pm \sqrt{2}$

9.  $(x + 5)^2 = 9$

$x = -2, -8$

10.  $(y - 3)^2 = 9$

$y = 1,5$

11.  $(z - 6)^2 = 18$

$z = 6 \pm 3\sqrt{2}$

12.  $(y + 4)^2 = 27$

$y = -4 \pm 3\sqrt{3}$

13.  $(2x - 3)^2 = 8$

$x = \frac{3 \pm 2\sqrt{2}}{2}$

14.  $(4x + 9)^2 = 6$

$x = \frac{-9 \pm \sqrt{6}}{4}$

15.  $x^2 + 9 = 0$

$x = \pm 3i$

16.  $x^2 + 4 = 0$

$x = \pm 2i$

17.  $x^2 - 6 = 0$

$x = \pm \sqrt{6}$

18.  $y^2 - 10 = 0$

$y = \pm \sqrt{10}$

19.  $2z^2 + 16 = 0$

$z = \pm 2i\sqrt{2}$

20.  $3p^2 + 36 = 0$

$p = \pm 2i\sqrt{3}$

21.  $(3x - 1)^2 = -16$

$x = \frac{1 \pm 4i}{3}$

**CYU Reflection:** How far can you go: basic, intermediate, or advanced?

**Rate your mastery level!**

How confident are you with the skills this CYU covered? Circle the score you would give yourself.

